

Isaac Cheung

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Education

University of British Columbia

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Vancouver, BC

September 2018 - May 2022

- GPA: 3.9/4.0
- Graduated With Distinction
- Dean's Honour List

Experience

Google

SOFTWARE ENGINEER

Sunnyvale, CA

August 2022 - Present

- Working on the Data Loss Prevention team for Google Workspace using Java.
- Designed and implemented native database filtering to reduce load time for admin page, in addition to laying the groundwork for future scalability efforts.
- Investigated the viability of native filtering and additional indexing to the schema for performance optimization.
- Conducted a dark launch to ensure correctness of the native database filtering implementation.

Amazon Web Services (AWS)

SOFTWARE DEVELOPMENT ENGINEER INTERN

Remote | Palo Alto, CA

February 2021 - August 2021

- Designed and implemented remote server execution support via VMware APIs. Done using Java and Golang.
- Integrated the AWS Schema Conversion Tool into existing service API workflow using Java and Docker, allowing the generation of recommendations for database migrations on the cloud.
- Leveraged numerous AWS services to streamline development, such as S3, DynamoDB, Lambda, API Gateway, Secrets Manager, Cloud Watch, and Cloud Formation.
- Led all testing for the features that I worked on, including unit tests, integration tests, and end-to-end tests.

Amazon Web Services (AWS)

SOFTWARE DEVELOPMENT ENGINEER INTERN

Remote | Palo Alto, CA

May 2020 - September 2020

- Reduced the Server Migration Service's console load time latency by over 60% through various API optimizations, such as leveraging global secondary indexes in DynamoDB to improve filtering. Done using Java.
- Increased the region build automation's coverage from 60% to 90% and removed deprecated dependencies through a refactoring of the team's automated region build code using an internal framework in Ruby.

BGC Engineering

WEB & MOBILE DEVELOPMENT INTERN

Vancouver, BC

January 2020 - May 2020

- Added functionality to the map identify tool, enabling the tool to select polygon geometry based target objects using TypeScript.
- Solved numerous concurrency issues related to the web form logic used by 1000+ engineers daily.
- Created new React web form and web form components to support 1000+ engineers in the field daily, enabling them to electronically document inspections and remotely sync the data on various hazard sites.
- Decreased the Jira backlog by over 10% by fixing numerous bugs in both front and back end using TypeScript, C#, and SQL Server.

Projects

Distributed Chat System

Technologies used: Golang, Cobra, TUI

April 2022

- Developed a distributed chat system, connecting users and allowing them to communicate with each other using a client interface.
- Designed the system for fault tolerance using primary-backup replication, allowing it to survive server failures so long as at least 1 server remains operational.
- Implemented round robin style load balancing to fairly distribute clients across all servers.

Skills

Languages	Python, Java, C, C++, C#, Golang, TypeScript, JavaScript, Ruby, SQL, NoSQL, Haskell
Libraries/Frameworks	React.js, Express.js, Three.js, Swing, Cobra
Testing	JUnit, Mockito, PowerMock, Mocha
Other Technologies	HTML, CSS, Git, Node.js, AWS, Heroku, Docker